THE AMES Astrogram
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AMES RESEARCH CENTER, MOFFETT FIELD
May 24, 1999
online at: http://ccf.arc.nasa.gov/dx/

Goldin lays out vision for NASA Astrobiology

--Nobel Laureate Named to Lead Ames-Centered Virtual Institute

On May 18, NASA Administrator Daniel S. Goldin came to Ames Research Center. To say that he had a great time would be a huge understatement!

He made an inspiring speech on astrobiology and NASA's future in space that played to rave reviews. He presided over the appointment of a world-renowned scientist and Nobel Laureate to head the NASA Astrobiology Institute (NAI). And he did it all live on NASA Television before a packed auditorium and national viewing audience.

"It doesn't get much better than this."
-- NASA Administrator, Daniel S. Goldin

Major media interest in prominent urban markets, including a story in the New York Times and hourly updates on CNN, did nothing to detract from the celebratory nature of the occasion. As Goldin himself observed at the end of a long but exhilarating day, "it doesn't get much better than this!"

The final flowering of the institute concept is the culmination of a lengthy process that Goldin initiated some five or so years ago. Even a Hollywood producer could not have scripted a more exciting conclusion.

The man tabbed to head the NAI is none other than the discoverer of the hepatitis B vaccine and the 1976 winner of the Nobel Prize for medicine, Dr. Baruch S. Blumberg. Blumberg is an expert in the fields of human biology, biochemistry and genomics. His scientific qualifications and his energy and enthusiasm for taking on this new challenge are unparalleled.

As Center Director Henry McDonald observed, "Dr. Blumberg is the ideal person to lead NASA's Astrobiology Institute into the 21st century." Goldin added, "We are extremely fortunate to have a person of his scholarship, experience and accomplishment. I am delighted that he has joined the NASA team to lead our visionary program in astrobiology."

And Blumberg does not come alone!

photo by Dominic Hart

NASA Administrator Daniel S. Goldin responds to a media question as Ames Center Director Henry McDonald and NAI Director Baruch Blumberg look on.

He brings with him a scientific review committee that is a veritable cornucopia of Nobel Laureates, a "Who's Who" of scientists and researchers devoted to astrobiological pursuits. This will ensure that a vigorous peer review process guides the Institute's program, a critical requirement according to the NASA Administrator.

Before announcing the Blumberg appointment, Goldin took advantage of the occasion to provide a glimpse of his view of NASA's future. He spoke of the important and integrated role that astrobiology and information technology will play. "It is not by accident that this Institute is located here in Silicon Valley," Goldin said. "One of the reasons for locating the Astrobiology Institute at Ames is to enable the synergy between information technology and astrobiology." This was music to the ears of Ames life and space science researchers and information technologists.

Goldin drew a parallel between present times and the period of the flowering of the Renaissance. "Today, we are embarking on a new era of discovery," he said. We are seeking "a new understanding of fundamental life processes on Earth and throughout our Universe." This is "a revolution that will require its own revolution . . . in communications, networking, information technology, computing and scientific thinking," said Goldin.

"We may be able to capture and develop the universal fingerprints of life processes," Goldin predicted. "The Institute's investigation may lead us to Mars, to other planetary moons, asteroids or comets, the Kuiper belt and the Oort cloud . . . like the Rosetta stone, they may hold the secrets of life's processes and the beginnings of our Universe," he concluded.

And the outcome? Of almost inestimable value, said Goldin. "Quite possibly, the rewards from this pursuit of astrobiol-

continued on page 6

Free Ames 60th Anniversary Concert -- see story page 5

NASA using robotic aircraft to study subtropic climate

A remotely piloted Altus aircraft gathers data over the Pacific Ocean near the island of Kaua'i recently.

For the first time, scientists are using a robotic airplane flying over the subtropical Pacific Ocean to study the properties of high-level cirrus clouds that may affect global warming. Recently, data were gathered using specially designed instruments carried by an Altus remotely piloted aircraft flying 50,000 feet above the ocean off the Hawaiian island of Kaua'i. The flights began April 28.

Scientists plan to use the measurements to develop a global picture of how solar energy enters the atmosphere and moves within and through clouds.

"We measure solar energy that is transmitted and reflected by cirrus clouds, and this helps us understand the effect these clouds have on climate," said Dr. Peter Pilewskie, a principal investigator at Ames. "The clouds redistribute the solar energy received by Earth from the Sun; they also emit and absorb radiant energy at longer wavelengths. Some of the light is scattered back into space, some is transmitted down to the lower atmosphere and some is absorbed by the cloud."

The Altus has a two-stage turbocharged engine that can take the aircraft to 65,000 feet, above the tropopause where most clouds form. The aircraft carries a 340-lb. payload of radiometers, laser-based lidar detection devices and similar instruments to collect and transmit information, such as the optical properties of clouds and the size and concentration of cloud particles. A second aircraft, a DHC-6 Twin Otter, flies below the clouds in stacked formation with the Altus above. The Twin Otter carries NASA radar that probes cloud ice and water content.

"The recent flights were the first of six to eight we plan to conduct through May 19," said Dr. Will R. Bolton of Sandia's Livermore, CA, laboratory, that is responsible for engineering aspects of the overall technical program. "The flights are both a scientific mission and a demonstration of the capability of using a remotely-operated aircraft in a sub-tropical environment." The remaining missions will be flown in a variety of conditions, with the Altus controlled by pilots on the ground.

"This experiment is a milestone in demonstrating the utility of robotic aircraft to do significant science missions," said Steve Wegener, the Environmental Research Aircraft and Sensor Technology (ERAST) program's science and sensors manager at Ames.

All of the instruments and the aircraft worked very well, and the scientists were extremely pleased with the data they obtained from above the cirrus clouds.

About 25 researchers from three Department of Energy laboratories, a dozen universities, three NASA centers and four private companies are working together at the Navy's Pacific Missile Range facility at Barking Sands, Kaua'i, HI during the four-week mission.

In the future, these climate researchers would like to conduct similar measurements in a deep tropical region, closer to the equator. Tropical storms bring much moisture from the ocean into the atmosphere, driving the dynamics of weather patterns over a large area.

The scientists' long range goal is to develop enough information to improve the accuracy of predictive models of climate change. Once the dynamics are better understood, the climate models can reflect that understanding and improve forecasting.

Other key participants in the study include the University of California, San Diego Scripps Institute of Oceanography and Colorado State University, which are providing radiometric instruments. In addition, the Sandia, Los Alamos and Lawrence Livermore National Laboratories, are developing instrumentation for small, light aircraft. The University of Maryland is providing the mission scientist and Pacific Northwest National Laboratory is managing the study's data.

Sandia is a multiprogram Department of Energy laboratory operated by a subsidiary of Lockheed Martin Corp. With main facilities in Albuquerque, NM., and Livermore, CA, Sandia has major research and development responsibilities in national security, energy, and environmental technologies. Dryden is NASA's Center of Excellence for atmospheric flight research. The Navy's Pacific Missile Range Facility at Barking Sands, Kaua'i, HI, is the world's largest instrumented, multi-environment test range for encroachment-free military testing and fleet tactical training objectives as well as civilian scientific missions. General Atomics Aeronautical Systems, Inc., based in San Diego, CA, is a leading manufacturer of uninhabited aircraft surveillance systems. The Altus is a larger, high-altitude civilian variant of its Gnat and Predator aircraft built for the U.S. military.

The climate studies are being guided by Sandia National Laboratories for the Department of Energy's Atmospheric Radiation Measurement--Unmanned Aerospace Vehicle program. The Altus was built by General Atomics Aeronautical Systems, Inc. for NASA. Dryden provided the aircraft and is funding the flight series at the U.S. Navy's Pacific Missile Range Facility under NASA's ERAST program.

More information about the experiment is available on the Internet at http://armuav.atmos.colostate.edu/uavs99/uavs99.html

BY JOHN BLUCK

Ames secretaries celebrate their day!

photo by Tom Trower

The annual Secretaries/Administrative Assistants Workshop was held April 21 at the Moffett Training and Conference Center. This year's theme was "Positive Changes in the Year 2000." The program included a keynote address on the changing environment and a live videoconference with the Public Broadcast Service.

News Briefs

NASA, USDA will bring space technology down to Earth

A new partnership between NASA and the U.S. Department of Agriculture (USDA) could result in updated maps of Yellowstone National Park, a better understanding of wildfires and improved management of California vineyards. Under the partnership, NASA has selected 13 research proposals that will apply remote-sensing data--images of the Earth taken by satellites--to issues on the ground: forest mapping, soil studies, wildfires, range management, flood-plain drainage and crop monitoring.

NASA working to improve crime-scene technologies

Watch out America's most wanted, NASA scientists are developing promising new software technologies and instruments to help law enforcement agencies catch criminals by improving the analysis of crime-scene evidence. NASA's Marshall Space Flight Center in Huntsville, AL, has demonstrated software that enhances and improves dark, blurry videotape--technology used by law enforcement to study video of the bombing at the 1996 Olympic Games in Atlanta. And NASA's Goddard Space Flight Center in Greenbelt, MD, is working with the National Institute of Justice to develop remote crime-scene analysis.

Atlantis headed for 21st Century

Space Shuttle Atlantis is headed for the 21st century equipped with the Multifunction Electronic Display System (MEDS) or "glass cockpit."

During a periodic major overhaul last year in Palmdale, CA, Atlantis underwent a host of modifications that made it the most modern orbiter in the fleet. Scores of outdated electromechanical screens, gauges and instruments gave way to 11 full-color, flat-panel screens. The new system reduces the cost of maintaining obsolete parts, provides greater back-up capabilities, weighs less and uses less energy than the original design.

Synthetic vision will reduce airline fatalities

The deadliest accidents for airliners and small aircraft happen in poor visibility--at night, in bad weather or both. The NASA Aviation Safety program is working to put an end to these kinds of accidents. NASA and aviation industry teams are developing synthetic vision, a revolutionary cockpit display system that will use new and existing technologies to give pilots a clear, electronic picture of what's outside their windows, no matter what the weather or time of day.

Arnold receives prestigious Presidential Rank Award

James Arnold, Chief of the Space Technology Division, recently received the prestigious 1998 Presidential Rank award during a ceremony held in Washington, D.C.

At the ceremony, held April 29 in the Old Executive Office Building adjacent to the White House, Office of Personnel Management (OPM) Director Janice Lachance presented Arnold with the award honoring him as a Distinguished Executive in the Senior Executive Service. Vice President Al Gore personally congratulated him and each of the other honorees.

photo by Tom Trower

Jim Arnold as he encounters the surprise party thrown for him by Ames personel at Chase Park on May 13.

The award was presented "for sustained extraordinary accomplishment in the management of programs of the United States Government and for leadership exemplifying the highest standards of service in the public, reflecting credit on the career civil service." The award is given to only one percent of the federal government's Senior Executive Service employees.

Arnold was selected for the award for having led a major research program at Ames dedicated to predicting entry flow environments, developing thermal protection systems for hypervelocity, atmospheric transit vehicles for solar system exploration and providing a national capability for arc jet testing. Arnold also was instrumental in initiating and managing Ames' computational chemistry program. This theoretical research compliments experiments, and can often yield data faster, cheaper, and as reliably as that determined from measurements.

Arnold said he had a mixture of very strong emotions associated with these events and being told by our nation's leaders that he was "among the best of the best" in government service.

"I'm feeling very humble and appreciative to be so honored, yet so very proud to be an American and an employee of the best center within the best agency in our government," Arnold said. "This award represents contributions from numerous colleagues, collaborators and supervisors from the past and present, whose guidance, brilliance and dedication made this award possible."

In addition to Arnold, three other NASA senior executives, John Young, JoAnn Morgan and Vincent Salomonson also received the award. Young has walked twice on the moon and was pilot of the first Space Shuttle flight. Morgan serves as Associate Director for Advanced Development and Shuttle Upgrades at Kennedy Space Center, and Salomonson directs Goddard Space Flight Center's research program for Earth Science. Arnold previously received the government's Meritorious Award in 1991.

Following the award ceremony, Arnold, his wife, the other award recipients and their guests attended a reception at the State Department. The reception was held on the eighth floor in the Diplomatic Reception and Banquet Rooms where Secretary of State Madeline Albright entertains international guests. The room features a variety of historical artifacts, including Thomas Jefferson's drafting table and an original of the Treaty of Paris signed by Benjamin Franklin and John Adams, among others.

Each year, the federal government recognizes and celebrates a small group of career executives with the Presidential Rank Award. The award winners have demonstrated their ability to lead a government that delivers great service, fosters partnerships and community solutions to achieve results, and continuously pushes itself to get the job done more effectively and efficiently.

There are two categories of awards, Distinguished Executives and Meritorious Executives. Award winners are chosen through a rigorous selection process which includes nomination by their agency heads, evaluation by boards of private citizens, and approval by the President.

BY MICHAEL MEWHINNEY

Blue whales with peace and farewell

Harvard Lomax , one of the pioneers of Computational Fluid Dynamics, passed away on May 1. Lomax, who retired in 1994 after 50 years of service, had just turned 77 on April 18. Lomax was beloved by everyone who came in contact with him over his many years at Ames.

He received his BA in Mechanical Engineering from Stanford University in 1944 and his Masters in Engineering Sciences from Stanford in 1947. He joined the staff of the then NACA in 1944 and worked from 1944 to 1970 as a research scientist.

Lomax worked closely with some of the early legends at Ames, including DeFrance and M. Heaslet. He was a leading contributor in the area of linearized supersonic flow theory used in the design of early supersonic aircraft. He published over 20 articles (for those of you who don't remember, it was very hard to get publications through the system in those days due to very demanding reviews and quality controls). His work in this area culminated with the Section D, "Supersonic and Transonic Small Perturbation Theory", co-authored with Max Heaslet, which comprises nearly one third of Vol. VI, General Theory of High Speed Aerodynamics in the Princeton Series. He pioneered in making CFD an aerodynamics design tool by developing computer programs for solving inviscid supersonic flow over blunt bodies which at the time was disseminated to over 60 organizations.

In the early 1970s, Lomax was probably the most influential person in the budding area of computational fluid dynamics. At that time, Lomax became Chief of the Computational Fluid Dynamics Branch. His creative research and leadership molded the CFD Branch into a group recognized internationally as one of the foremost in its field. The branch made significant, innovative, and ground-breaking contributions in the areas of languages, numerical methods, turbulence simulations, and solutions to inviscid and viscous flow problems. His research in small disturbance theory, transonic flow methods, Euler and Navier-Stokes solution techniques, turbulence modeling and simulation, parallel computing were just a few of the areas where Lomax made an impact, either through his own research or by mentoring, leadership, innovation and his own style of managing research by getting the most out of everyone who had contact with him. The Baldwin-Lomax turbulence model is the most widely used and best known turbulence model in the world and is still in wide use today; this is a testament to his ground-breaking contributions. The highly successful area of turbulence full simulation and large Eddy simulation arose in those early years under his tutelage. Most of the modern flow simulation codes in existence today employ the implicit methods he helped pioneer and develop.

photo by Dominic Hart

Harvard Lomax

Numerous researchers who started their careers under this tutelage have risen to responsible positions within and outside of NASA. Alumni include many university professors and aerospace researchers and executives. Notable among them were Prof. Robert MacCormack, (Stanford University); Prof. Earl Murman (MIT); Prof. Joseph Steger (UC Davis); Dr. William Ballhaus (Former Ames Director and VP at Martin-Maretta Corp.) and many others.

Lomax also left a legacy as a professor and teacher at Stanford University. From 1950 to 1994, he was a lecturer and consulting professor in various departments and in particular the department of aeronautics and astronautics. His "Introduction to Computational Fluid Dynamics Course" trained many of the world's leading CFD researchers and is still taught at Stanford today.

Lomax was the recipient of the NASA Medal for Exceptional Scientific Achievement (1973), the AIAA Fluid and Plasmadynamics Award (1977), an AIAA Fellow (1978), Presidential Rank Award for Meritorious Executive, Senior Executive Service (1983), he was the first Ames Research Center Fellow (1986), received the Presidential Rank Award for Distinguished Executive, Senior Executive Service (1987), a member of the National Academy of Engineering (1987) and the Prandtl Ring recipient (1996).

In all, Lomax very successfully carried out over 50 years of research and leadership, resulting in over 80 technical papers and reports, numerous significant contributions and a legacy of high quality research, integrity and pride which will last all who know them for the remainder of their lives. He will be sorely missed and widely remembered.

Lomax is survived by his wife Joan, his sons Harvard L. and James W. and daughter Melinda Cootsona, six grandchildren and many friends.

There will be a memorial service for Harv Lomax on Saturday May 29 at 2:00 p.m. at St. Bede's Episcopal Church. The address for the church is 2650 Sand Hill Road, Menlo Park. Please contact the author at ext. 4-6417 if you plan on attending so that he can inform the family.

By Tom Pulliam

Start a student on the road to success

Each summer, the Office of External Affairs hosts NASA Scholars from Historically Black College and Other Minority Institutions throughout the United States. NASA Scholars are exceptional undergraduate students whose fields of study range from engineering to computer sciences.

Students participating in the NASA Scholars Program must maintain a GPA of 3.0 or above. Previous Ames sponsors can testify that these students provide outstanding support and are a welcome addition to the Ames community.

Currently, we are looking for Ames researchers and scientists to provide this year's selected NASA Scholars with a meaningful work experience.

There is no charge to the sponsoring organization and the benefit to both the mentor and the student is priceless. This year, twenty-two NASA Scholars will work a ten-week term beginning Monday, May 24, 1999 and ending July 30, 1999.

Please visit the University Programs web site at: http://ccf.arc.nasa.gov/dx/univ/university.html to review the available students resumes. For additional information please contact Brenda Collins at ext. 43540. Again, there is absolutely no charge to the sponsoring organization.

San Jose Symphony to perform free concert for Ames employees

It's time to celebrate!

In recognition of Ames Research Center's 60th anniversary, all employees — including civil servants and contractors — are invited to attend a free "Symphony on the Green" outdoor performance of Gustav Holst's "The Planets," on Wednesday, June 2. The program will begin at 1:00 p.m., following a free picnic lunch on the grass.

The free concert will be performed by the San Jose Symphony on the grass at historic Shenandoah Plaza (commonly referred to as the Military Parade Ground) located between North and South Akron Roads. The performance is part of the symphony's free "Project Music" community concert series performed in non-traditional locations.

"Symphony on the Green" is being hosted by the Ames Exchange, which is also hosting the picnic lunch for all Ames employees. Lunch will be served from 11:00 a.m. until 1:00 p.m. in front of Building 19 facing Shenandoah Plaza. Employees are invited to eat their lunch on the lawns of Shenandoah Plaza. Employees are encouraged to bring a light jacket, hat, sunscreen, and blankets or lawn chairs for the picnic lunch and concert on the grass. A limited number of chairs will be provided.

Composed by Holst between 1914 and 1916, "The Planets" is often referred to as a suite. This beautiful, classical work, frequently performed during media productions featuring astronomical phenomena, consists of seven individual movements — one for each planet except Earth and Pluto (Pluto was not discovered until 1930.) The work's individual movements are: "Mars, The Bringer of War; Venus, The Bringer of Peace; Mercury, The Winged Messenger; Jupiter, The Bringer of Jollity; Saturn, The Bringer of Old Age; Uranus, The Magician; and Neptune, The Mystic" (not included in this performance). The concert will begin with a performance of "Also Sprach Zarathustra: Introduction."

Schedule of Events:

Days Events:

- 9:30 a.m. to 11:00 a.m. "60th" Photo – A Once-in-a-Decade Opportunity!
- 11:00 a.m. to 1:00 p.m. Free Employee Picnic Lunch (Café will be serving limited menu*) – lunch-time music by Rodrigo DeToledo
- 1:00 p.m. to 2:30 p.m. Recognition Program & Free Symphony Performance of "The Planets"

*Please note that on Wednesday, June 2 the Café will be serving a limited, "Grab-n-Go" menu consisting of salad bar and deli services. Don't fret, the popular "Burrito day" will be moved to Thursday, June 3.

Once-in-a-Decade Opportunity!

Are you in this picture? Make sure you're in the next! Meet at 9:30 a.m. on Shenadoah Plaza in front of Building 19 to mark your place in Ames' history. Let's all wear RED, WHITE, or BLUE shirts for the 60th Anniversary photo.

ISO certification recognized

Ames Research Center's successful completion of the ISO 9000 certification process will be recognized in conjunction with the center's celebration of its 60th anniversary on Wednesday, June 2.

As part of the day's festivities, which include a free concert by the San Jose Symphony and a free picnic lunch hosted by the Ames Exchange, Deputy Center Director William E. Berry will present an award to Ames ISO program director Rick Serrano in recognition of the center's recent recommendation for ISO certification.

On April 30, Ames passed the entire ISO certification process without a single 'finding'. It was the first time anyone could remember in the history of ISO auditing that a comparably sized business organization had accomplished such a feat.

STELLAR program is indeed stellar!

The Rotary National Award for Space Achievement Foundation was established in 1985 by the Space Center Rotary Club to oversee the administration of a national awards event to recognize outstanding achievements in space while creating greater public awareness of the benefits of space exploration.

Each year, people who have made preeminent contributions to space exploration are nominated for the STELLAR awards by government and industry leaders, universities, professional organizations and individuals.

On March 12, Ames' STELLAR program (Science Training for Enhancing Leadership and Learning through Accomplishments in Research) was nominated for the innovative creation of a program to improve math, science and technology education activities in our nation's classrooms.

Also nominated was the Challenge Project Team of Ames for achievement and innovation in public education related to the life sciences research of STS-95. Both Sonya Cardeñas and Dr. Rose Grymes attended the event at Johnson Space Center.

Dr. Rose Grymes with Capt. John Young (USN), retired NASA Astronaut and Mr. Jack Lister, President of Rotary National Awards for Space Achievement Foundation.

Goldin lays out vision for NASA Astrobiology

continued from front page

ogy may eclipse the societal and economic benefits of all prior NASA activity," he suggested.

Goldin thanked both McDonald and interim NAI Director and Deputy Director of Astrobiology and Space Research, Scott Hubbard, for their vision, hard work and exceptional stewardship of the Institute for the past 15 months. He closed with a quote from T.S. Elliot, "only those who will risk going too far can possibly find out how far one can go." "We, at NASA, can't wait to find out," Goldin proclaimed proudly.

Later in the day, Goldin signed a memorandum of understanding with SGI (formerly Silicon Graphics) to collaborate on advanced supercomputer technology, following on the earlier successful development of a 256-processor system at Ames' Numerical Aerospace (NAS) facility. This collaboration will "develop the first of a long line of advanced computers," said Goldin, that "will design the spacecraft of the next millennium, the new astrobiological computing systems and may also provide more powerful, more intelligent portable diagnostic devices for physicians, engineers and others."

BY DAVID MORSE

photo by Tom Trower

Dr. Baruch S. Blumberg, newly appointed director of the Astrobiology Institute.

Embry-Riddle aeronautical University's summer term starts May 24.

The following classes are being offered:

Undergraduate		
BA 335	International Business	Thursday
BA 390	Business Law	Monday
BA 419	Aviation Maintenance Mgmt	Tuesday
MA 106	Basic Algebra & Trigonometry	Wednesday
Graduate		
MAS 605	Research Methods & Statistics	Monday

To register or for more information, please call 603-9694. Embry-Riddle is located in Hangar 1 and the office hours are 8:00 a.m. to 3:30 pm.

Calendar

Jetstream Toastmasters, Mondays, 12 noon to 1 p.m., N-269/Rm. 179. Guests welcome. POC: Jenny Kahn at ext. 4-6987 or Karen Matsuoka at ext. 4-6184.

Ames Bowling League meets at Palo Alto Bowl every Tuesday at 6 p.m. The league is in need of substitute bowlers. POC: Mina Cappuccio at ext. 4-1313.

Ames Ballroom Dance Club. Ames Ballroom Dance Club. Tuesdays: Samba 5/11. Tango 5/18, 5/25, 6/1. 3 levels of classes, from Beg. to Int. 5:15 p.m. to 6:45 p.m. Moffett Training and Conference Center, Bldg. 3/ Showroom. Women dancers are especially encourage to join. POC: Helen Hwang, hwang@dm1.arc.nasa.gov ABDC Website: http://abdc.arc.nasa.gov/

Model HO/HOn3 Railroad Train Club at Moffett Field invites train buffs to visit and join the club in Bldg. 126, across from the south end of Hanger One. The club is in particular need of low voltage electricians and scenery builders & maintainers. Work nights are usually on Friday nights from 7:30 p.m. to 9:30 p.m. Play time is Sunday from 2 p.m. to 4 p.m. For more info, call John Donovan at (408) 735-4954 (work) or (408) 281-2899 (home).

Ames Child Care Center Board of Directors Meeting, Wednesdays, 12 noon to 1 p.m., N-213/Rm. 204,. POC: Debbie Wood at ext. 4-0256.

Native American Advisory Committee Mtg, May 25, 12 noon to 1 p.m., Ames Café. POC: Mike Liu at ext. 4-1132.

Ames Contractor Council Meeting, June 2, 11 a.m., N-200 Comm. Rm. POC: Greg Marshall at ext. 4-4675.

Hispanic Advisory Committee for Employees, June 3, 11:45 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary R. Valdez, at ext. 4-5819.

Environmental, Health & Safety Monthly Information Forum, June 3, 8:30 a.m. to 9:30 a.m., Bldg. 19/Rm 1078. POC: Linda Vrabel at ext. 4-0924.

Ames African American Advisory Group Meeting, June 3, 11:30 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary Buford Howard at ext. 4-5095.

Southbay FEW Chapter Mtg, June 8, 11:30 a.m. to 1 p.m., N-241/Rm B1. POC: Christine Munroe, ext. 4-4695.

Professional Administrative Council (PAC) Meeting, June 10, 10:30 a.m. to 11:30 a.m. Location TBD. POC: Janette Rocha, ext. 4-3371.

Ames Sailing Club Meeting, June 10, 11:30 a.m. to 1 p.m., N-262/Rm. 100. POC: Greg Sherwood, ext. 4-0429.

Ames Multicultural Leadership Council Meeting, June 16, 11:30 a.m. to 1 p.m., Galileo Rm/Ames Café. POC: David Morse, ext. 4-4724 or Sheila Johnson, ext. 4-5054.

NFFE Local 997 Union General Meeting, June 16, 11:30 a.m. to 12:30 p.m., Bldg. 19/Rm. 2017. Guests welcome. POC: Marianne Mosher at ext. 4-4055.

Ames Asian American Pacific Islander Advisory Group Meeting, June 17, 11:30 a.m. to 1 p.m., N-241/ Rm. B2. POC: Daryl Wong at ext. 4-6889 or Brett Vu at ext. 4-0911.

Ames Amateur Radio Club, June 17, 12 noon, N-260/Conf. Rm. POC: Mike Herrick, K6EAA at ext. 4-5477.

Nat'l Association of Retired Federal Employees, S.J. Chapter #50, Meeting, Jun 11, at the Elk's Club, 44 W. Alma Avenue, San Jose. Social hour: 10:30 a.m. Prog. & bus. mtg. follow lunch at 11:30 a.m. POCs: Mr. Rod Peery, Pres., (650) 967-9418 or NARFE 1-800-627-3394.

Ames Classifieds

Ads for the next issue should be sent to *astrogram@mail.arc.nasa.gov* by the Monday following publication of the present issue and must be resubmitted for each issue. Ads must involve personal needs or items; no commercial/third-party ads and will run on space-available basis only. First-time ads are given priority. Ads must include home phone numbers; however, Ames extensions will be accepted for carpool and lost and found ads only. Due to the volume of material received, we are unable to verify the accuracy of the statements made in the ads.

Housing

Furnished room. Share bath/kitchen/garden/ laundry. Easy transport: bus/train + El Camino + H101/ 237/85 + Central Expressway. Rent: $560/mo. Call (650) 969-3932 or email at: solemate@best.com

Available immediately: For commuter and/or intern; a semi-private temporary space in the same location as above. Weekly $100 (+ one month). Call (650) 969-3932 or email at: solemate@best.com

Master bedroom now available in Mountain View. Large, tastefully decorated apartment of professional lady - El Camino & Rengstorff. Gated bldg w/pool - convenient to bus 20 mins to downtown Palo Alto. Safe $750. Fontella (650) 962-8411.

Italian postdoc at Ames needs room to rent from April-Oct. Call ext. 4-0312.

Grad student from Portugal visiting Ames needs housing from approximately June 1 to Aug 31. Call ext. 4-6740.

Grad student/Univ of Aachen seeks furnished room near Ames for 6 months starting June 14. Call (650) 969-0737 or email turan@lufmech.rwth-aachen.de

Grad student from McGill Univ., Montreal Canada needs furnished summer housing from June through mid-August. Call Jane Cordell, Sensors 2000! program or email jcordell@mail.arc.nasa.gov

Grad student/Ames intern needs furnished summer housing from June to mid-August. Must be located near public transportation. Email Linda Hays at hays@hanover.edu or Dr. April Ronca at (650) 364-2664.

House for sale: 2bd 2ba single family house in Cupertino. Great schools and handy for Ames. $438,000. Call (408) 257-2164.

House for rent: 3bd/2ba, 1600 sq.ft, South San Jose. Near hills, H101/85/87, Light rail, shopping & schools. Includes grdnr, wsh/dry, fridge, dishwshr, etc. & 2-phone lines. Currently owner occupied, avail-May 24. $1,650 mo. Call (408) 363-8727.

For rent: 3bd/2ba townhouse in Almaden, near H85, light rail. Quiet! W/D, pool, spa, sauna, new carpet, hardwood floors, cable, 2 secured underground parking spaces. $1,600/mo. Available starting June/July. Call (408) 445-0460.

Room for rent, share 4bd/2ba Berryessa home near H680 & Montague. 12 miles to Ames. Clean N/S $450/ mo +utils $450 dep. Kevin or Sara (408) 259-7684.

Postdoc/University of Kentucky needs furnished summer housing from June 9 to Aug. 23. Must be near public transportaion. Email JCBall0@pop.uk.edu or call (606) 269-9354. Contact at Ames is Jane Cordellat email jcordell@mail.arc.nasa.gov

Rent room in Mountain View. $400 mo plus utilities, N/S. Call (650) 961-1718.

Miscellaneous

Dog needs a home; really sweet, named Coyote. Neutered male, young adult mix. Good w/children and other dogs. Surrendered by owner since he is too big (approx. 50 pds). Has all shots. Call (831) 475-6454.

Free to good home. Black, female, corgi-cocker spaniel mix. Spayed, current shots, house trained. About 10 years old. Cammie's owner has moved away to college. Call (408) 927-7586.

Sears Roper washer and dryer. Basic brand, color white, three years old in excellent condition, $400. Deb (650) 938-3246

Top of the line Norditrac CTX 4000, brand new. $500. Catherine, (650) 938-8893.

All or part K2 Unltd.DIN 7890 skiis Salomon PowerRelay 857 bindings; Reflex Int'l (52" alum.) poles; Salomon SX92-350/55 boots. Make offer. Call (650) 961-9629.

Healthrider, exc cond, includes add'l weight package. $150 (Over $250 in stores) Herb/Ilene (408) 246-3616.

'96 Sanger ski boat. Only 83 hours, exc cond/like new. 350 mag motor, white hull w/grey & purple & bubblegum pin stripe. Tandum trailer & boat cover inc. Used 1 year. $19,900 or B/O. Call (408) 266-7272.

Car Stereo amp: Coustic 25W x 2. $25. Call (408) 295-2160

Tape backup drive & software w/manual for Windows + (7) backup tapes. $15. Call (408) 295-2160.

Les Miserables dream cast in concert at Royal Albert Hall, VHS tape, $15. Call (408) 295-2160.

Laptop, NEC Versa, PCMCIA card installed, some upgrade capability, $500; Cherrywood curio cabinet w/ light, $125; Healthrider $100; small Lowe travel backpack $40; Size 5 1/2 womens Zamberland Gortex hiking boots, used twice, $50. Call (408) 249-5180 or email sushilvr@hotmail.com

Compaq Contura 430C laptop computer with 1MB hard drive, 32K RAM, (2) PCMCIA slots, 33.6 modem card, and carrying case. Nds battery. $500. Adrian (650) 604-5659 (work) or email ahevener@mail.arc.nasa.gov

Intex children's swimming pool. 12' dia x 30" high. Sets up in 30min with PVC frame. 600gph pump w/ filter. Orig $200. Exec cond. Only used one summer. Look at http://www.intexcorp.com/agpools.shtml for picture/specs. Will sell for $99/bo. West 510-490-3732 evenings.

Ames employee available for house/pet sitting. Dependable female, with references. Call (408) 734-5149.

GE refrigerator, gd working condition. $99, or B/O. Call (650) 493-1984.

Macintosh Performa 6400/200, 2.4GB hard drive, 56MB RAM/1MB VRAM, audio/video input card, built-in sub-woofer 28.8Kbs internal modem keyboard, mouse, manuals, cables, lots of software included. Asking $750, Can add 14" monitor for $100 more. Call (408) 530-8626 or Email serogers@sirius.com

Transportation

'88 Plymouth Colt, 2dr/hatchback, 4-speed manual, CD (with remote), blue metallic, 109K mls, one owner, great shape, very clean, smogged. $1,995 or B/O. Call (408) 985-5428 or email lavahopper@aol.com

'88 Pontiac 6000, 4D, AC, cruise, power everything, good engine, $2K, Call Barry (510) 793-4457 or bcunningham@mail.arc.nasa.gov

'89 Honda Accord LXi Coupe, green with leather interior, CD player and changer, enkei wheels, $6,200. Annette 395-8326.

'92 Toyota Corolla DX, AT, AC, AM/FM Cass. New brakes, very dependable and clean. $5,000. Call (650)365-8337.

'92 Lincoln Town car 4-door Executive Series, 122K miles, 4.6L V-8, AT, power everything, security system, tow package, interior very good, new air springs, great ride, only 85k on engine. $8,200 or B/O. Call (408) 395-6477.

Vacation rental

Lake Tahoe-Squaw Valley townhse, 3bd/2ba, balcony view, horseback riding, hiking, biking, golf, river rafting, tennis, ice skating, and more. Summer rates. Call (650) 968-4155 or email DBMcKellar@aol.com

Lost & Found

Moffett Field lost and found may be reached via ext. 4-5416 at any time. Residents and employees at Ames may also use Internet Browser at: http://ccf.arc.nasa.gov/ codejp/pages/lostFound.html to view a list of found property and obtain specific instructions for reporting lost or found property and how to recover found property. Call Moffett Field Security Police Investigations Section at ext.4 1359 or email at: mfine@mail.arc.nasa.gov.

LOST in the vacinity of bldgs 203, 204, 241, 200: Gold Diamond Pendant necklace. Reward offered. If found call Annette at ext. 4-5203.

Blood Drive to be held June 10

Ames will be hosting a blood drive in cooperation with the Red Cross on Thursday, June 10, from 7:30 a.m. to 3:30 p.m. The drive will take place in the patio room of Building 3, the Moffett Training and Conference Center.

All medically eligible donors are invited to participate, including resident staff, contractors, students and civil service employees. As a special incentive, the Red Cross will distribute luggage tags to all donors. In addition, every donor will be entered to win a one-week vacation in Hawaii!

To make an appointment by internet, go to the web site: http://q.arc.nasa.gov/qh/blood/index.htm, click on Register Now To Give Blood, choose a time slot, and you're done. If for some reason you can not register, or need to change your appointment time, please call ext. 4-2056 for assistance. There are five appointments available every 15 minutes.

For more information on the blood donation process, or if you wish to participate in the Bone Marrow Program, contact Chaz Czaplicki at ext. 4-6942 or via e-mail at cczaplicki@mail.arc.nasa.gov.

Calling all Ames science and computer jocks

How would you like a paid "sabbatical" to strengthen local minority college education in science and engineering? The National Hispanic University (NHU), in collaboration with a Memorandum of Understanding with NASA/Ames, is seeking an engineer or scientist to work with the university on a full-time (40 hrs/wk), one year, temporary reassignment.

The successful applicant for this position will continue to receive full NASA salary. The candidate should have a PhD in a relevant science or engineering field (master degrees may be considered), and will work with and report directly to the university provost.

Duties include evaluation and development of physical or computer science curricula and facilities; development of course content and syllabi; textbook and software review and recommendations; and development and review of proposals for math and science grants. Candidates can also facilitate the transfer of appropriate surplussed NASA Ames property to NHU where it will be effectively utilized.

Candidates will also assist the Provost in long-term, strategic planning, scheduling and budget activities for the university.

If you are interested in this opportunity, please contact Phil Luna, a recent return from an NHU assignment which he termed "extremely rewarding." Luna can be reached at ext. 4-5929 or via emailat pluna@mail.arc.nasa.gov for further details.

Astrogram deadlines

All Ames employees are invited to submit articles relating to Ames projects and activities for publication in the *Astrogram*. When submitting stories or ads for publication, submit your material, along with any questions, in MS word by e-mail to astrogram@mail.arc.nasa.gov on or before the deadline.

Deadline	*Publication*
Mon, May 24	*Fri, Jun 4*
Mon, Jun 7	*Fri, Jun 18*
Mon, Jun 21	*Fri, Jul 2*
Mon, Jul 5	*Fri, Jul 16*
Mon, Jul 19	*Fri, Jul 30*
Mon, Aug 2	*Fri, Aug 13*
Mon, Aug 16	*Fri, Aug 27*
Mon, Aug 30	*Fri, Sep 10*
Mon, Sep 13	*Fri, Sep 24*
Mon, Sep 27	*Fri, Oct 8*

THE AMES Astrogram

The Ames ASTROGRAM is an official publication of the Ames Research Center, National Aeronautics and Space Administration.

Managing Editor.....David Morse
Editor.....Astrid Terlep

We can be reached via email at: astrogram@mail.arc.nasa.gov or by phone (650) 604-3347

THE AMES Astrogram

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, California 94035-1000

Official Business
Penalty for Private Use, $300

Ames Research Center

FIRST CLASS MAIL
POSTAGE & FEES PAID
NASA
Permit No. G-27